

**ABSTRACT OF THE DISCLOSURE**

A method for dispatching based on metrology tool performance includes determining a precision metric associated with each of a plurality of metrology tools. A metrology request including context information is generated. A precision requirement for the metrology request is identified based on the context information. A set of the metrology tools capable of satisfying the metrology request is identified based on the precision requirement and the precision metrics. A manufacturing system includes a manufacturing execution system server and a metrology monitor. The manufacturing execution system server is configured to generate a metrology request including context information. The metrology monitor is configured to determine a precision metric associated with each of a plurality of metrology tools, identify a precision requirement for the metrology request based on the context information, and identify a set of the metrology tools capable of satisfying the metrology request based on the precision requirement and the precision metrics.